

Amendments to the specification

Please amend the specification as follows:

Please amend the paragraph beginning on page 8, line 21, as follows:

--Next, the CdSe particles are overcoated by introducing a solution containing zinc and sulfur precursors in a coordinating solvent (e.g., TOP) into a suspension of CdSe nanocrystallites at the desired temperature. The temperature at which the dots are overcoated is related to the quality of the resultant composite particle. Overcoating the CdSe particles at relatively higher temperatures may cause the CdSe seed crystals to begin to grow via Ostwald ripening and deterioration of the size distribution of the particles leading to broader spectral line widths. Overcoating the particles at relatively low temperatures could lead to incomplete decomposition of the precursors or to reduced crystallinity of the ZnS shell. An ideal growth temperature may be determined for each CdSe core size to ensure that the size distribution of the cores remains constant and that shells with a high degree of crystallinity are formed. In preferred embodiments, CdSe crystallites are overcoated using diethyl zinc and hexamethyldisilathiane as the zinc and sulfur precursors. CdSe crystallites having a diameter in the range of about 23 Å-30 Å are overcoated at a temperature in the range of about ~~135-145.degree.C.~~ 135-145 °C., and preferably about 140 °C. Similarly, nanocrystallites having a diameter of about 35 Å, 40 Å, 48 Å, and 55 Å, respectively, are overcoated at a temperature of about 155-165 °C., and preferably about 160 °C., 175-185 °C. and preferably about 180 °C., about 195-205 °C., and preferably about 200 °C., and about 215-225 °C., and preferably about 220 °C., respectively. The actual temperature ranges may vary, dependent upon the relative stability of the precursors and the crystallite core and overlayer composition. These temperature ranges may need to be modified 10-20 °C., depending upon the relative stability of the precursors. For example, when the more stable trialkyl phosphine chalcogenides (like TOPSe) are used, higher temperatures are employed. The resulting (CdSe)ZnS composite particles are also passivated with TOPO/TOP on their outermost surface.--